

**First Year B.Sc Optometry Degree Supplementary Examinations****April 2019****Paper II – Physiology  
(2016 Scheme)****Time: 3 hrs****Max marks: 80**

- Answer all questions
- Draw diagrams wherever necessary
- Write section A and section B in separate answer books. Do not mix up questions from section A and section B.

**Q P Code: 123013****Section A – General Physiology****Marks: 40****Essay:****(10)**

1. Describe the mechanism of oxygen transportation from lungs to tissues by the blood.

Add a note on oxygen Hb dissociation curve and factors affecting it.

**(5+3+2)****Short notes:****(3x5=15)**

2. Cardiac cycle
3. Define anemia. Give the etiological classification of anemia with example.
4. Pathway for pain from left leg

**Answer briefly:****(5x2=10)**

5. Show the innervation of urinary bladder.
6. List the functions of saliva.
7. Effect of hyper secretion of growth hormone in adult.
8. Clinical features of Parkinsonism.
9. List the hormones of adrenal gland

**One-word answer:****(5x1=5)**

10. Normal stroke volume .....
11. Normal residual volume .....
12. Partial pressure of carbon dioxide in arterial blood .....
13. Normal renal blood flow per minute .....
14. Pacemaker of the heart is .....

**Q P Code: 124013****Section B – Ocular Physiology****Marks: 40****Essay:****(10)**

1. Explain the visual pathway from receptor to cerebral cortex. Describe the effect of lesion of optic pathway at different sites.

**(6+4)****Short notes:****(3x5=15)**

2. Neural mechanism of light adaptation.
3. Accommodation reflex.
4. Photochemistry of vision

**Answer briefly:****(5x2=10)**

5. Define color blindness. Mention the types.
6. Functions of lens of eyes.
7. List the extrinsic ocular muscles.
8. Functions of tear
9. What is myopia. How it is corrected

**One-word answer:****(5x1=5)**

10. Normal intra ocular pressure is ..... (specify the unit)
11. Neural centre for pupillary light reflex is situated at -----
12. The pigment present in cones -----
13. One popular theory for color vision .....
14. Refractive index of cornea is ..... (specify units)

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